The listing of claims presented below replaces all prior versions and listing of claims in the application.

Listing of claims:

1. (Currently amended) A process for producing fractions from a catalytic hydrocarbon, in which catalytic hydrocarbon feed is fractionated in one or more stages to produce a gasoline fraction, a diesel fraction and an intermediate fraction, the gasoline fraction boiling at ~~35 ~ 110"C~~ 35 to 110°C ± 30"C, the diesel fuel fraction boiling at 210 ± 30 °C -355 ± 30 °C , and the intermediate fraction boiling at 120 ± 30 °C -210 ± 30 °C . and the intermediate fraction, optionally after recombination with part or all of the gasoline fraction, is subsequently extracted at a solvent extractor to separate an aromatic fraction and a non-aromatic fraction, said fractionation being carried out by either use of a single fractionator from which three separate products, the gasoline fraction, the intermediate fraction and the diesel fraction are taken or by use of two fractionators. the first fractionator separating the feed into either a gasoline fraction and a higher boiling fraction or into a diesel fraction and a lower boiling fraction and thereafter in a second fractionator fractionating the higher boiling fraction to produce an intermediate fraction and a diesel fraction or fractionating the lower boiling fraction to produce an intermediate fraction and a gasoline fraction.

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2. (Previously presented) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 1, wherein the intermediate fraction is obtained from one or more side cuts at the middle section of a single fractionator .

3. (Currently amended) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 2, wherein the fractionator [[1]] has an overhead temperature of 65 - 95, an outlet temperature of ~~the~~ diesel fuel of 190 - 280 , a temperature of the side cuts is 120~260 , a bottom temperature is 340~385, an overhead pressure of the fractionator [[1]] of 0.11~0.28 Mpa, and a bottom pressure of the fractionator of 0.12~0.30Mpa.

4. (Currently amended) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 1, wherein the fractionation is a two- step fractionation: first step, fractionate a gasoline fraction and a diesel fuel fraction, increase the temperature of the fractionator [[1]] by 10~15 , control the distillation range of the gasoline fraction 1 at 35~210 ±30 , and control the distillation range of the diesel fuel fraction at 210±30 ~355±30 ; pump the gasoline fraction to the second fractionator for secondary fractionation, an intermediate fraction with the distillation range of 110±30 ~210±30 is drawn from the bottom of the second fractionator, and a gasoline fraction with the distillation range of 35~110 ±30 is drawn from the overhead thereof.

5. (Currently amended) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 1, wherein the fractionation is a two-step fractionation: first step, fractionate a gasoline fraction and a diesel fuel fraction, reduce the temperature of the first fractionator down 10~40, control the distillation range of the gasoline fraction 1 at 35~110 ±30 , and control the distillation range of the diesel fuel fraction 1 at 110±30 ~355±30 ; pump the diesel fuel fraction to a second fractionator for secondary

fractionation, a diesel fuel fraction with the distillation range of 210±30 ~355±30 is drawn from the bottom of the second fractionator, and an intermediate fraction with the distillation range of 110±30 ~210±30 is drawn from the overhead thereof.

6. (Currently amended) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 1, wherein the aromatic hydrocarbon fraction obtained by solvent ~~extration~~ extraction is fractionated, to produce at least an overhead cut and bottoms and a high octane number gasoline fraction is separated from the overhead cut of said fractionation, and a heavy aromatic hydrocarbon fraction is separated from the bottoms thereof; and ~~the~~ the high octane number gasoline fraction blended with the gasoline fraction, and the heavy aromatic hydrocarbon fraction blended with the diesel fuel fraction.

7. (Currently amended) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 2, wherein 1 to 4 side cuts are obtained from the middle section of the fractionator [[1]] to divide the intermediate fraction into 1~4 distillation ranges.

8. (Previously presented) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 1, wherein the aromatic hydrocarbon fraction is used as high quality gasoline directly.

9. (Currently amended) A process for producing fractions from a catalytic

hydrocarbon as claimed in claim 1, wherein the non-aromatic hydrocarbon fraction is fractionated at [[s]] a further fractionator, a diesel fuel fraction is separated from the bottom of the further fractionator, and blended with the diesel fuel fraction from the first fractionator or the second fractionator fractionation to increase the cetane number of the diesel fuel, or make one or more grades of low condensing point diesel fuel; light non-aromatic hydrocarbons are separated from the overhead of the further ~~fractionato.~~ fractionator.

10. (Canceled)

11. (Previously presented) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 1, wherein one or more side cuts are obtained from the middle section of the first fractionator to provide an intermediate fraction; separation of the gasoline fraction, the diesel fuel fraction and the intermediate fraction being completed at the first fractionator; the distillation range of the gasoline fraction is controlled at 35~150 , the distillation range of the diesel fuel fraction is controlled at 170~395 ,the distillation range of the intermediate fraction is controlled at 70~250.

12. (Currently amended) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 1, wherein 2 to 4 side cuts are obtained from the middle section of the fractionator [[1]], so as to divide the intermediate fraction into 2 to 4 streams.

13. (Previously presented) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 12, wherein the fractionator has an overhead temperature of 65~130, diesel fuel outlet temperature of 170~250 , a side cut temperature of 120~240 , a bottoms temperature of the fractionator of 330~385 , and the fractionator has an overhead pressure of 0.15~0.28MPa, a bottom pressure of 0.12~0.30MPa.

14. (Previously presented) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 1, wherein the fractionation is a two-step fractionation wherein : in the first step said catalytic hydrocarbon is fractionated in said first fractionator to produce a gasoline fraction and a diesel fuel fraction,; the distillation range of the gasoline fraction is controlled at 35~250 , the distillation range of the diesel fuel fraction is controlled at 170~395 ; the gasoline fraction is pumped to the second fractionator for secondary fractionation, wherein an intermediate fraction with the distillation range of 70~250 is drawn from the bottom of the second fractionator, a gasoline fraction with the distillation range of 35~150 is drawn from the overhead thereof; the intermediate fraction and the gasoline fraction with the distillation range of 35~150 are pumped to a solvent extraction unit to separate aromatic hydrocarbon fraction and non-aromatic hydrocarbon fraction.

15. (Previously presented) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 1, wherein the fractionation is a two-step fractionation wherein: in the first step said catalytic hydrocarbon is fractionated in said first fractionator to produce a gasoline fraction and a diesel fuel fraction; the distillation range of the

gasoline fraction is controlled at 35~150 , the distillation range of the diesel fuel fraction is controlled at 70~395 ; the diesel fuel fraction is pumped to a second fractionator for secondary fractionation, a diesel fuel fraction with the distillation range of 170~395 is drawn from the side cuts of the second fractionator, an intermediate fraction with the distillation range of 70~250 is drawn from overhead thereof; and the intermediate fraction and the diesel fuel fraction with the distillation range of 170~395 are pumped to a solvent extraction unit to separate aromatic hydrocarbon fraction and non-aromatic hydrocarbon fraction.

16. (Previously presented) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 1 wherein the aromatic hydrocarbon fraction obtained by solvent extraction is fractionated, and a high octane number gasoline fraction is separated from overhead of said fractionation , a heavy aromatic hydrocarbon fraction is separated from bottoms thereof; and the non-aromatic fraction obtained by solvent extraction is also fractioanted to produce light gasoline as overhead light non-aromatic hydrocarbons as side cuts; and a diesel fuel fraction as bottoms.

17. (Previously presented) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 1, wherein the aromatic hydrocarbon fraction is used as high quality gasoline without further processing.

18. (Previously presented) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 16, wherein the high octane number gasoline fraction is

blended with the light gasoline fraction.

19. (Previously presented) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 16, wherein the heavy aromatic hydrocarbon fraction is blended with the diesel fuel fraction.

20. (Currently amended) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 16, wherein the diesel fuel fraction ~~are~~ is blended with the diesel fuel fraction.

21. (Previously presented) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 16, wherein the light non-aromatic hydrocarbon fraction is blended with the gasoline fraction.

22. (Previously presented) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 16, wherein the heavy aromatic hydrocarbon fraction is used as an independent product; the diesel fuel fraction serves as feed for ethylene production after being hydrogenated; and the light non-aromatic hydrocarbon fraction is used as chemical light oils.

23. (Previously presented) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 16, wherein the high octane number gasoline fraction is blended with the light gasoline fraction and the light non-aromatic hydrocarbons.

24. (Previously presented) A process for producing fractions from a catalytic

hydrocarbon as claimed in claim 1, wherein water-soluble solvent used for extraction is recycled, regeneration of the water-soluble solvent being effected by: 1) mixing the water-soluble solvent with water, the weight ratio of water and the water-soluble solvent being 0.1-10; 2) separating the mixture by sedimentation wherein three phases are formed, the top layer being oil, the middle layer being a mixture of water-soluble solvent and water, and the lower layer being insoluble substance; 3) distilling the middle mixed phase in step 2) at atmospheric pressure or under a vacuum to obtain regenerated water-soluble solvent and water; 4) discharging the regenerated water-soluble solvent in 3) , cooling the separated water; 5) after cooling the water in 4) reseparating to divide water and oil, discharging the recovered water, and mixing with the water-soluble solvent in 1) for recycling use.

25. (Previously presented) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 24, wherein the mixed phase in step 3) is filtered before distillation.

26. (Previously presented) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 24, wherein the weight ratio of the water and the water-soluble solvent is 0.5-3.

27. (Previously presented) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 24, wherein the weight ratio of the water and the water-soluble solvent is 1-2.

28 (Previously presented) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 24, wherein the water-soluble solvent includes a mixed solvent of 2 or more water-soluble solvents.

29. (Currently amended) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 24, wherein the mixed phase in step 3) is filtered ~~for~~ more than once before distillation.

30. (Previously presented) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 29, wherein said mixed phase is filtered in a 2-stage filtration.

31. (Previously presented) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 29, wherein said mixed phase is filtered in a 3-stage filtration.

32. (Previously presented) A process for producing fractions from a catalytic hydrocarbon as claimed in claim 30, wherein said mixed phase is filtered in series.